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**From:** Welch, August [WelchA@cdmsmith.com]  
**Sent:** 6/24/2016 2:33:20 PM  
**To:** Hoogerheide, Roger [Hoogerheide.Roger@epa.gov]; Cirian, Mike [Cirian.Mike@epa.gov]  
**CC:** Formanek, Erin [formanek@cdmsmith.com]; Coan, Sean [CoanSM@cdmsmith.com]; Repine, Damon [RepineDL@cdmsmith.com]  
**Subject:** Request for Field Modification for ISM Sampling

Roger and Mike,

Below are CDM Smith's thoughts on what should be requested from Roux for inclusion in the field mod for implementation of ISM sampling and data analysis methods. Please review and provide a recommendation on how to proceed.

- 1-Description of the modification, why it is needed, and steps taken to rectify the situation (e.g., a new SOP was drafted for review by EPA).
- 2- Attach the Test America SOP for ISM sample preparation.
- 3- Provide a rationale for the selection of the three DUs (i.e., 20 percent resampling) selected for re-sampling.
- 4- Provide an explanation for interpretation of potential bias for locations that will not be re-sampled (i.e., bias could be either high or low depending on the portion of the original sample that was sent to the laboratory).
- 5-Provide a description of the potential implications of the bias:
  - a-Original results for DUs that are not re-sampled may not be adequate for risk evaluation due to low bias if results are near (this should be clearly defined and justified) the human health or ecological threshold.
  - b-Original results for DUs that exceed human health or ecological thresholds and are not resampled may result in unnecessary remedial actions due to high bias of the original result.
- 6-Provide a description of how data from DUs that are re-sampled will be compared to the original samples (e.g. samples will be compared using a RPD calculation with X% acceptance, all three original samples will be statistically compared to all new samples which each group representing a population, etc.) to determine if the difference between the original samples and new samples is acceptable, therefore demonstrating that the other DUs do not need to be re-sampled.

Thank you,

August Welch, LG  
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